Index of Claims

| Application | Control No. |
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|-------------|-------------|

10/815,954

10/815,95 Examiner

Kamal A. Saeed

Applicant(s)/Patent under Reexamination

INGHARDT ET AL.

Art Unit

1626

| _ | Allowed  |
|---|----------|
| √ | Rejected |

| - | (Through numeral)<br>Cancelled |
|---|--------------------------------|
| ÷ | Restricted                     |

| N | Non-Elected  |
|---|--------------|
| ı | Interference |

| A | Appeal   |
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| 0 | Objected |

| Cla          | aim      |        |                                                  |          |                                        | Dat                                              | e                         |              |                 |          | С          | lain |              |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |          | D                  | ate       |         |              |          | ]  | CI       | aim        |                                                  |           |           |          | Date     | <del></del>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |           | _      |
|--------------|----------|--------|--------------------------------------------------|----------|----------------------------------------|--------------------------------------------------|---------------------------|--------------|-----------------|----------|------------|------|--------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------|-----------|---------|--------------|----------|----|----------|------------|--------------------------------------------------|-----------|-----------|----------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------|--------|
|              |          | 2/8/0  |                                                  |          |                                        |                                                  |                           |              |                 | $\neg$   |            | Т    |              |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |          | Т                  |           | Ī       | T            |          | 1  |          |            |                                                  |           |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 | $\neg$    |        |
| Finat        | Original | 30     | 'n                                               |          |                                        |                                                  |                           |              |                 |          | Final      | Ι.   | Original     |                    | - 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    | 1         |         |              | -        |    | Final    | Original   |                                                  |           |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |           | 1      |
| i L          | ji       | 64     | ·                                                |          | ļ                                      | 1                                                |                           | l            |                 |          | i <u>E</u> | 1:   | Ę            |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |          |                    | ļ         |         |              | -        |    | 证        | į          |                                                  |           |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |           | 1      |
|              | ٥        |        |                                                  |          |                                        |                                                  |                           |              |                 |          |            | . I  | - 1.         |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |          |                    |           |         | $\perp$      |          |    |          |            |                                                  |           |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Ш               |           |        |
|              | 1        | V      | 1                                                |          |                                        |                                                  |                           |              |                 |          |            |      | 1            |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |          |                    |           |         | $\perp$      |          |    |          | 101        |                                                  |           |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |           |        |
|              | 2        | 1      |                                                  | 乚        | L                                      |                                                  |                           |              |                 |          |            |      | 2            |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |          |                    |           |         |              |          |    |          | 102        | L                                                |           |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |           |        |
|              | 3        |        |                                                  |          |                                        |                                                  |                           |              |                 |          |            |      | 3            |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |          |                    |           |         |              |          |    |          | 103        |                                                  |           |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |           |        |
|              | 4        | V      | 1_                                               | <u> </u> | L                                      | ┖                                                |                           | L            | Ш               | _        |            |      | 4            | _                  | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | _        | _                  |           |         |              | $\perp$  | 1  |          | 104        | <u> </u>                                         | Ш         |           |          |          | Ш                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Ш               | _         |        |
|              | 5        | 4      |                                                  |          | <u> </u>                               |                                                  |                           | <u> </u>     | Ш               |          |            |      | 5            |                    | $\perp$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          | $\perp$            |           |         |              | $\bot$   | 1  |          | 105        |                                                  |           |           |          |          | $ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{ld}}}}}}$ | Ш               | _         |        |
|              | 6        | Ш      | ┖                                                | <u> </u> | ┸                                      | ╙                                                | _                         | L            | Ш               | _        |            |      | 6            | $\perp$            | $\dashv$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | _        | _                  | _         |         | 4            |          | 1  |          | 106        | _                                                |           |           |          |          | L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Щ               |           |        |
|              | 7        | Ц      | _                                                | _        | ┞                                      | <u> </u>                                         | _                         | <u>L</u>     | 1               | _        |            |      | 7            | _                  | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | _        | 4                  | 4         | _ _     | _            |          |    |          | 107        | L                                                |           |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Ш               | _         |        |
| <u> </u>     | 8        | $\mu$  | <u> </u>                                         | _        | ــــــــــــــــــــــــــــــــــــــ | <u> </u>                                         | ┞-                        | L            |                 | _        |            |      | 8            | 4                  | $\dashv$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | $\dashv$ |                    | -         | $\perp$ | 4            |          | 4  | <u></u>  | 108        | <u> </u>                                         | $\sqcup$  |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | $\dashv$        |           |        |
|              | 9        | 1      | <u> </u>                                         | L        | Ŀ                                      | <u> </u>                                         | <u>Ļ</u>                  | <u> </u>     | Ш               | 4        | _          |      | 9            | 4                  | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4        | 4                  | 4         | 4       | 4            | _        | 4  |          | 109        | ╙                                                |           | _         |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | $\sqcup$        | _         |        |
|              | 10       | 1      | _                                                | L        | ┺                                      | <u> </u>                                         | <u> </u>                  | _            |                 | 4        | <u> </u>   |      | 0            | _                  | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4        | 4                  | _         | 4       | 4            |          | -  | <u> </u> | 110        | <u> </u>                                         | -         | _         |          |          | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | $\sqcup$        | _         |        |
| <u> </u>     | 11       | $\mu$  | <u> </u>                                         | L        | 1-                                     | 1-                                               | ـ                         | <u> </u>     | Н               | _        | _          |      | 1            | $\dashv$           | $\downarrow$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | _        | $\dashv$           | _         | 4       | 4            | - -      | -  |          | 111        | <u> </u>                                         | $\vdash$  |           |          | ļ.,      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | $\dashv$        | 4         |        |
|              | 12       | 1      | $\vdash$                                         | L        | $\vdash$                               | 1                                                | 1                         | ⊢            | $\sqcup$        |          | <u> </u>   |      | 2            | $\dashv$           | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | $\dashv$ | $\dashv$           |           | -       | +            | +        | -  | <u> </u> | 112        | <u> </u>                                         | $\vdash$  |           | Н        | -        | <u> </u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | $\vdash \vdash$ | 4         | _      |
|              | 13       | ۷      | ⊢                                                | ⊢        | ╀-                                     | <del> </del>                                     | 1                         | <del> </del> | Н               | $\dashv$ | -          |      | 3            | +                  | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4        | $\dashv$           | -         | +       | +            | +        | -  | <u> </u> | 113        | <u> </u>                                         | $\vdash$  | -         | -        | <u> </u> | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | $\vdash$        | 4         |        |
| <u> </u>     | 14<br>15 | -      | $\vdash$                                         | <u> </u> | $\vdash$                               | $\vdash$                                         | ⊢                         | H            | $\vdash \vdash$ | $\dashv$ | $\vdash$   | +5   | 4            | +                  | $\dashv$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | $\dashv$ | +                  | +         | +       | +            | +        | ł  | <u> </u> | 114<br>115 | <del> </del>                                     | $\vdash$  |           |          | $\vdash$ | <u> </u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | $\dashv$        | 4         |        |
|              |          |        | ┝                                                | ┡        | 1                                      | ₽-                                               | ┢                         | ┢            | Н               | -        | <u> </u>   |      |              | +                  | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -        | +                  | -         | -       | +            |          | ł  | <u> </u> |            | H                                                |           |           |          | _        | <u> </u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | $\vdash$        | -         | _      |
| _            | 16       | -      | ├                                                | -        | ╁                                      | ╀                                                | ├-                        | ⊢            | $\vdash$        | $\dashv$ | $\vdash$   |      | 6            | $\dashv$           | $\dashv$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | $\dashv$ | $\dashv$           | +         | +       | +            | - -      | -  | $\vdash$ | 116<br>117 | ├                                                | $\vdash$  | -         | $\vdash$ | -        | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | $\dashv$        | $\dashv$  | _      |
|              | 18       | -      | -                                                | ├        | ┼-                                     | ┢┈                                               | -                         | ₩            | $\vdash$        | $\dashv$ | -          |      | 8            | +                  | $\dashv$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | +        | $\dashv$           | $\dashv$  | +       | +            | +        | 1  |          | 118        | <u> </u>                                         | $\vdash$  | $\dashv$  |          | _        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | $\vdash$        | -         |        |
| <del></del>  | 19       | _      | ⊢                                                | ⊢        | ╁                                      | ╁                                                | ┼                         | ├-           | -1              | ᅱ        | -          |      | 9            | +                  | -+                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | +        | +                  | $\dashv$  | +       | ╁            |          | -  | <u> </u> | 119        |                                                  | -         | -         |          |          | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | $\vdash$        | $\dashv$  |        |
|              | 20       | H      | ⊢                                                | ⊢        | ⊢                                      | ╁                                                | ╁                         | ⊢            | Н               | $\dashv$ | $\vdash$   |      | 0            | +                  | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -        | -                  | -         | -       | +            |          |    |          | 120        | $\vdash$                                         | +         | -         |          |          | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -               | $\dashv$  | _      |
|              |          | Y      | $\vdash$                                         | ⊢        | ╁                                      | ╁                                                | ┢                         | H            | $\vdash$        | $\dashv$ | -          |      | 1            | +                  | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -+       | -                  | -         | +       | ╁            |          | 1  |          | 121        | -                                                | $\vdash$  | -         | -        | -        | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | -               | -         |        |
|              | 22       | 7      | -                                                | ┢        | $\vdash$                               | $\vdash$                                         | ⊢                         | H            | $\dashv$        | $\dashv$ | $\vdash$   |      | <del> </del> | +                  | $\dashv$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | $\dashv$ | -                  | +         | +       | ┿            |          | 1  | _        | 122        | ⊢                                                | $\vdash$  |           | -        | -        | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | $\dashv$        | $\dashv$  |        |
| <u> </u>     | 23       | r      | $\vdash$                                         | ╁        | ┢                                      | -                                                | ╁                         |              | -               | $\dashv$ | -          |      | 3            | +                  | $\dashv$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | $\dashv$ | $\dashv$           | $\dashv$  | ╬       | +            |          | 1  |          | 123        | ┝                                                | -         |           | -        |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | $\vdash$        | ᅱ         |        |
| <u> </u>     | 24       | 1<br>V | ╁                                                | ┢╌       | ╁╌                                     | ┢                                                | ├                         | -            | $\dashv$        | -        | -          |      | 4            | +                  | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | +        | $\dashv$           | +         | +       | +            | +        | 1  | <u> </u> | 124        | <del>                                     </del> |           |           |          |          | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | $\dashv$        | $\dashv$  | -      |
| <del> </del> | 25       | Ť      | ╁                                                | ┝        | ╁                                      | ╂─                                               | -                         |              | $\dashv$        | $\dashv$ | -          |      | 5            | ┰                  | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -        | -                  | +         | ╅       | ╅            | $\dashv$ | 1  |          | 125        | ┢                                                |           |           |          | —        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | $\dashv$        | $\dashv$  | _      |
|              | 26       |        | ┢                                                | Н        | ┢                                      | ┢                                                | H                         |              | $\dashv$        | ┪        | -          |      | 6            | +                  | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | +        | $\dashv$           | +         | +       | +            | ╅        | 1  | H-       | 126        | $\vdash$                                         | $\vdash$  | -         |          | _        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | $\dashv$        | $\dashv$  | $\neg$ |
| -            | 27       | -      | $\vdash$                                         | ┢╌       | ╁┈                                     | $\vdash$                                         | $\vdash$                  | $\vdash$     | $\vdash$        | ┥        | <b>—</b>   |      | 7            | $\dashv$           | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | +        | +                  | $\dashv$  | +       | +            |          | ┨  | <b></b>  | 127        | -                                                | $\vdash$  |           | -        |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | $\dashv$        | $\dashv$  | -      |
|              | 28       |        | H                                                | Н        | $\vdash$                               | H                                                | $\vdash$                  | $\vdash$     | $\vdash$        | ⊣        |            |      | 8            | $\dashv$           | $\dashv$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | $\dashv$ | $\dashv$           | $\dashv$  | +       | ╅            | ╅        | 1  |          | 128        | -                                                | $\vdash$  | $\exists$ |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | .               | $\dashv$  |        |
|              | 29       |        | <del>                                     </del> |          | 1                                      | H                                                | <u> </u>                  |              |                 | _        |            |      | 9            | $\dashv$           | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1        | 7                  | +         | ┰       | +            | ╅        | 1  |          | 129        | 一                                                | H         | $\neg$    |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | $\dashv$        | $\dashv$  | -      |
|              | 30       |        | t                                                | -        | T                                      | T                                                | $I^-$                     | $\vdash$     | _               | $\dashv$ | -          |      | ō            | $\dashv$           | 十                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 7        | $\dashv$           | 十         | 十       | $\top$       | _        | 1  |          | 130        | $\vdash$                                         | П         |           |          |          | Н                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 | $\dashv$  | _      |
|              | 31       |        |                                                  |          | T                                      |                                                  |                           | Г            |                 | $\dashv$ |            |      | 1            | $\top$             | $\top$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 十        | 寸                  | $\top$    | $\top$  | -            | ╅        | 1  |          | 131        | _                                                | $\vdash$  |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 | $\neg$    | _      |
|              | 32       |        |                                                  |          | T                                      | T                                                |                           |              |                 | ┪        |            |      | 2            | T                  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 寸        | 十                  | 十         | $\top$  | $\top$       | 十        | 1  |          | 132        |                                                  |           |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 | $\dashv$  | _      |
|              | 33       |        | T                                                |          |                                        | <del>                                     </del> | $\vdash$                  |              |                 | $\neg$   |            |      | 3            |                    | 寸                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | $\dashv$ | 十                  | $\dashv$  | $\top$  | $\top$       | +        | 1  |          | 133        |                                                  | $\Box$    |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 | ╛         |        |
|              | 34       |        | Ħ                                                | Г        | 1                                      | 1.                                               |                           | П            |                 | $\neg$   |            |      | 4            |                    | $\top$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 7        | $\dashv$           | $\top$    | 1       | $\top$       |          | 1  |          | 134        |                                                  | $\sqcap$  |           |          |          | П                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | $\neg$          | $\dashv$  | $\neg$ |
|              | 35       |        | П                                                | Π        |                                        | Π                                                |                           |              |                 | $\neg$   |            |      | 5            | $\top$             | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | $\neg$   | $\dashv$           | $\forall$ | 7       | 1            | $\top$   | 1  |          | 135        |                                                  | П         |           |          |          | П                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | $\neg$          | $\neg$    | $\neg$ |
|              | 36       |        | Г                                                |          | T                                      |                                                  |                           |              |                 |          |            | 8    | 6            |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |          |                    |           |         | $\top$       |          | 1  |          | 136        |                                                  | П         |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | $\neg$          | $\exists$ |        |
|              | 37       |        |                                                  |          | L                                      |                                                  |                           |              |                 |          |            | 8    | 7            | $\Box$             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |          | _1                 |           |         | ightharpoons |          | ]  |          | 137        |                                                  |           |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | $\Box$          | ╗         |        |
|              | 38       |        |                                                  |          |                                        |                                                  |                           |              |                 |          |            | 8    | 8            |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |          |                    |           |         | T            |          | ]  |          | 138        |                                                  |           |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 丁               | ╗         |        |
|              | 39       |        |                                                  |          |                                        |                                                  |                           |              |                 |          |            |      | 9            | $\prod$            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | $\Box$   | $\prod$            | $\Box$    | $\prod$ | I            |          | ]  |          | 139        |                                                  |           |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | J               | $\Box$    |        |
|              | 40       |        |                                                  |          |                                        |                                                  |                           |              |                 |          |            |      | 0            | $\Box$             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |          | $\Box$             | $\Box$    | $\perp$ | $\perp$      |          | ]  |          | 140        |                                                  | $\square$ |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | $\Box$          |           |        |
|              | 41       |        |                                                  |          | 匚                                      | $\Box$                                           |                           |              |                 | _]       |            |      | 1            | $oldsymbol{\perp}$ | $oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{ol}}}}}}}}}}}}}}}$ | $\perp$  | $oldsymbol{\perp}$ | $\perp$   |         | $\perp$      |          | J. |          | 141        |                                                  | $\Box$    |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | $\Box$          |           |        |
|              | 42       |        |                                                  |          | 匚                                      |                                                  |                           |              |                 |          |            | 9    | 2            | $\perp$            | _]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          | $\bot$             |           |         | $\perp$      |          | 1  |          | 142        |                                                  | Ш         |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | $\Box$          | $\Box$    |        |
|              | 43       |        |                                                  | L        | L                                      | $oxedsymbol{oxedsymbol{oxedsymbol{eta}}}$        | $oxed{oxed}$              | Ш            |                 |          |            |      | 3            | $\perp$            | $\perp$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | $\perp$  | $\perp$            |           | $\perp$ |              |          | 1  | L        | 143        | <u> </u>                                         | Ш         |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | $\perp$         |           |        |
|              | 44       |        | _                                                | _        | ــــ                                   | <u> </u>                                         | $ldsymbol{ldsymbol{eta}}$ | Щ            | $\Box$          | _        |            |      | 4            | $\perp$            | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4        | 4                  | 4         |         | 4            |          | 1  |          | 144        | L                                                | Ш         |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |           | _      |
|              | 45       | _      | _                                                | _        | <b> </b> _                             | <u> </u>                                         | <u></u>                   | Ш            | $\perp$         | _        |            |      | 5            | _                  | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4        | 4                  | 4         | 4.      | 4            | $\bot$   | 1  | igwdow   | 145        |                                                  | 니         |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 | _         |        |
|              | 46       |        | <u> </u>                                         | <u> </u> | ┞_                                     | 1_                                               | <u> </u>                  | Ш            | $\dashv$        | $\dashv$ |            | 1 5  | 6            | $\perp$            | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | _        | 4                  | _         | 4       | 4            |          | -  | <u> </u> | 146        |                                                  | 니         |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | _               | ᆚ         |        |
|              | 47       |        |                                                  | _        | <del> </del>                           | <u> </u>                                         | <u> </u>                  | Ш            | _               | _        | <u> </u>   |      | 7            | $\perp$            | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4        | 4                  | _         | $\perp$ | 4            | _        | -  | L        | 147        | <u> </u>                                         | Ц         | ļ         |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | _               | $\dashv$  | _      |
|              | 48       | _      | <u> </u>                                         | _        | ├-                                     | <u> </u>                                         | 1                         | Щ            | $\vdash$        | _        | -          |      | 8            | $\dashv$           | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -        | 4                  | $\dashv$  | _       | +            | -        | -  | L        | 148        | <u> </u>                                         | $\sqcup$  | _         |          | $\Box$   | Ш                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | _               | ᆜ         |        |
|              | 49       | _      | ⊢                                                | _        | <u> </u>                               | <u> </u>                                         | <u> </u>                  | $\sqcup$     | $\dashv$        | _        | <u> </u>   | 1.9  | 9            | -                  | $\perp$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | $\dashv$ | $\dashv$           | _         | 4       | 4            | $\bot$   | 1  |          | 149        |                                                  | Ш         |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | $\dashv$        | $\dashv$  |        |
|              | 50       |        | Ш                                                |          | L_                                     | L                                                | Ш                         | Ш            |                 | $\Box$   | L          | 10   | 00           |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | $\bot$   | $\perp$            |           | _L      | ᆚ            |          | ]  | L        | 150        | L_                                               | Ш         |           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |           |        |